UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SEP 28 2011

SUBJECT: Approval of a Request for a Removal Action at the Metal Bank of America State Road Site Philadelphia, Pennsylvania

FROM: Dennis P. Carney, Associate Director
Hazardous Site Cleanup Division, Region III

TO: Mathy Stanislaus, Assistant Administrator
Office of Solid Waste and Emergency Response

THRU: Larry Stanton, Director
Office of Emergency Management

ATTN: Gilberto Irizarry, Director
Program Operation and Coordination Division

ISSUE

The attached Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Action Memo pertains to the Metal Bank of America State Road Site (Site) located in Philadelphia, Pennsylvania. A continuing removal site evaluation performed in accordance with Section 300.410 of the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) has identified a threat to public health or welfare or the environment due to the uncontrolled presence of hazardous substances, pollutants, or contaminants at the Site. Continuing removal site evaluation identified Site conditions for which response action is necessary in order to mitigate a release of hazardous substances from the Site. Those hazardous substances are present within soil beneath the Site and are migrating into a drainage system running beneath the Site which discharges, at times, into the Delaware River. The hazardous substances at the Site include polychlorinated biphenyls (PCBs) and chlorinated benzene compounds such as trichlorobenzene.

The Region has determined that this Site meets the criteria for a removal action under Section 300.415 of the NCP. Pursuant to Regional Delegation of Authority 14-2, funds in the amount of $ 816,850, of which $ 741,850, are Regional Removal Allowance Costs, have been approved to mitigate the threats posed by the Site. The attached Action Memorandum documents approval of the Removal Action necessitated by Site conditions and threats.

Attachment: Funding Request

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SEP 28 2011

SUBJECT: Request for Funding for a Removal Action at the Metal Bank of America State Road Site Philadelphia, Philadelphia County, Pennsylvania

FROM: Michael Towle, On-Scene Coordinator
Eastern Response Branch (3HS31)

TO: Dennis P. Carney, Associate Director
Office of Preparedness and Response (3HS30)

I. PURPOSE

The purpose of this Action Memorandum is to request funding for a Removal Action at the Metal Bank of America State Road Site (Site). This Action Memorandum also documents approval for a time-critical Removal Action to mitigate the release and threatened release of hazardous substances at the Site. The Site is located at 6801 State Road in the City of Philadelphia, Philadelphia County, Pennsylvania.

In response to the presence of polychlorinated biphenyls (PCBs) contamination at the Site, a removal site evaluation was conducted by the On-Scene Coordinator (OSC) which included sampling activities completed in April 2011. The removal site evaluation was conducted in accordance with Section 300.410 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.410, and identified a threat to public health or welfare or the environment posed by hazardous substances at the Site.

To mitigate the identified threat, CERCLA funding is necessary to conduct a Removal Action pursuant to Section 300.415 of the NCP, 40 C.F.R. § 300.415, to prevent the release and/or substantial threat of release of hazardous substances from the Site and to protect public health, welfare, and/or the environment. A Removal Action Project Ceiling of $816,850, of which $741,850, are from the Regional Removal Allowance, is necessary to mitigate the threats as identified in this Action Memorandum. There are no nationally significant or precedent-setting issues associated with the response.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Background Information

The Site, among other things, was the location of entities involved in the business of recovering and recycling scrap metals. The dismantling of used electrical transformers was a significant component of the scrap-metals operations at the Site. As part of former operations at the Site, various scrap metals, including used transformers and capacitors, were stored upon soils subsequently found to be oil-stained and contaminated by PCBs. In response, capacitors in the area of concern were removed by owner/operators of the Site and the oil-stained soils were then covered by asphalt between 1986 and 1988. This asphalt cover was later repaired and expanded after an EPA Site Inspection in 1988. Additional repair work was completed sometime in 2010. The owners of the Site have submitted information to the Pennsylvania Department of Environmental Protection's (PADEP) Land Recycling (a/k/a Act 2) Program and have initiated investigation of the Site. By 2003 the owners declared bankruptcy without addressing elevated PCBs contamination.

2. Physical Location/Site Characteristics

The Site is located at 6801 State Road in the City of Philadelphia, Pennsylvania. The approximate geographic coordinates are N 40.02033 and W 75.03895. The area of concern is approximately 6 acres in size and is bound by industrial properties and roadways on all sides. A fence surrounds the area of concern which is property upon which scrap materials were staged at one time and which is now completely covered by asphalt. The asphalt is believed to be between 2 and 3 inches thick. The Site is situated in an industrialized area of the City of Philadelphia along the Delaware River.

The Site surface is sloped such that water from precipitation events is able to pool within certain areas upon the asphalt cover. Two manholes have also been identified within the area of the asphalt cover. These manholes provide access to a drainage system, operated by the Philadelphia Water Department, which courses through the Site and through which both sanitary and storm flows migrate. During low periods, the flow would move to the City of Philadelphia's treatment works. During high flow periods, the flow could overflow, as designed, through a combined sewer overflow (CSO) into the Delaware River.

The depth to groundwater at the Site is about 10 feet below ground surface. The drainage system discussed above is constructed, at points, below the surface of groundwater (i.e., below the water table).

3. Removal Site Evaluation

In 2008, sampling activities conducted by EPA at the Site confirmed the presence of

PCBs and other organic compounds in the soils beneath the asphalt. PCBs were detected in soils throughout the Site. Other organic compounds including numerous chlorinated benzene compounds (e.g., trichlorobenzene), 2-butanone, and methylene chloride were detected in more limited volumes of soils at the Site. These other organic compounds were primarily detected in the soils also contaminated by PCBs.

The highest concentration of PCBs (320 mg/kg) was detected in the soils between approximately 2 and 10 feet below the ground surface at a location where elevated concentrations of several chlorinated benzene compounds (e.g., trichlorobenzene (500 mg/kg)) were also detected. Commonly, certain electrical transformer fluids containing PCBs also contained chlorinated benzene compounds such as trichlorobenzene to reduce the viscosity of the PCBs. The organic solvent 2-butanone (a/k/a methyl ethyl ketone) was also detected at concentrations up to 29 mg/kg in these same soils.

The detection of PCBs, chlorinated benzenes, and 2-butanone in the same soils at depths extending to the water table (at approximately 10 feet) indicates that organic compounds in the soil may be facilitating the transport of PCBs into deeper soils and soils within the area ground water. It is plausible that electrical transformer fluids composed of PCBs and trichlorobenzene, each of which are denser than water, could migrate downwards through the soil as a non-aqueous phase liquid (NAPL) if released at the Site. The presence of solvents such as 2-butanone or methylene chloride could also further facilitate the transport of PCBs by increasing the solubility of the relatively insoluble PCBs within groundwater. PCBs were found in the soils at depths below the groundwater table. Additionally, PCBs have been found within the waters migrating through the drainage system at the Site. The above information indicates that the PCBs have migrated from the surface where they were likely released and are migrating uncontrolled in the environment. Additionally, PCBs were detected at concentrations of approximately 190 mg/kg in shallow soil immediately beneath the asphalt cover.

On November 2, 2010, the OSC and Remedial Project Manager investigated the Site. The asphalt cover was observed to have been recently repaired (as evidenced by tarry coatings over the vegetation growing within cracks in the asphalt surface). Areas of previously ponded or pooled water were evident by the appearance of rings (similar to bathtub rings) or marks left at the water line of pooled water areas. The OSC has observed ponded or pooled water at the Site. The OSC verified that the asphalt had been cracked or repaired in areas of ponded or pooled water.

On February 11, 2011, the OSC met at the Site with representatives of the Philadelphia Water Department (PWD) which operates and maintains a drainage system beneath the surface of the Site through which both sanitary and storm flows in the area of the Site migrate. Available maps indicate that the drainage system underlies the Site, exists in the area within which PCBs are located, exists at a depth which is below the water table, and is constructed of brick. The Site location with the highest PCB, chlorinated benzene, and 2-butanone concentrations in the soil is located alongside the drainage system. The PWD suggested to the OSC that a brick sewer drainage system such as that underlying the Site normally accepts storm

flows and infiltration of underground water such as groundwater. The drainage system would normally accept all flows in the industrial area destined for treatment or discharge to the Delaware River. Normally flow is directed to treatment works operated by the City of Philadelphia. During high flow conditions such as storm events, the excess flow is directed, by design, to the Delaware River.

On April 27, 2011, water and sediment within the drainage system were collected and sent for laboratory analysis. Water was collected from locations upstream, within (beneath the surface of), and downstream of the Site. Sediment was also collected if it was present. The analytical results indicate that PCBs are likely entering the drainage system from the Site; PCBs in the flow within the drainage system were detected at a concentration of 0.005 ug/L upstream of the Site and at a higher concentration of 6.69 ug/L downstream of the Site. Sediment concentrations of approximately 6.4 mg/kg were detected in sediment within the drainage system at a location within the Site.

The Site is completely fenced and the fence is presently intact.

4. Quantities and Types of Substances Present

The OSC continues to conduct a removal site evaluation and investigate the Site. The available results of sampling activities indicate the presence of PCBs at the Site which are entering the groundwater and drainage system beneath the surface of the Site. Numerous organic compounds, primarily chlorinated benzene compounds, are also present in the soil. Based on available information from investigations of the Site, the OSC estimates approximately 25,000 cubic yards of soil at the Site are contaminated by PCBs. The levels of PCBs in these contaminated soils exceeds 25 mg/kg, which is EPA's acceptable level for an industrial setting, such as the Site, that is characterized by a low potential for contact with the soil. Of the total volume of contaminated soils at the Site, approximately 2500 cubic yards may contain levels of PCBs higher than 100 mg/kg, a concentration at which appropriate caps and covers would be required under EPA's PCB Regulations to protect the environment against further migration of PCBs.

5. National Priorities List Status

The Site is not presently on the National Priorities List (NPL) and has not been proposed to the NPL. The OSC will forward appropriate information to the site assessment program for follow up as needed.

B. Other Actions to Date

Other actions at the Site have included the removal of capacitors, several buildings, and large amounts of scrap metal by previous owners and/or operators of the Site. The Site was also covered by asphalt and fenced, but neither removal of PCBs contaminated soil nor the potential for the PCBs to migrate into drainage systems were addressed.

C. State and Local Authorities' Roles

The Pennsylvania Department of Environmental Protection (PADEP, or the "Department") and the City of Philadelphia are not involved in current response actions at the Site.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Section 300.415 of the NCP, 40 C.F.R. § 302.415, lists the factors to be considered in determining the appropriateness of a Removal Action. Specifically, paragraphs (b) (2) (i), (iv), (v), and (vii) of Section 300.415 apply as follows to the conditions as they exist at the Metal Bank of America State Road Site.

A. 300.415 (b)(2)(i) -- "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants"

Polychlorinated biphenyls (PCBs) are hazardous substances and are located at the Site. The analytical results of samples collected from the Site indicate that PCBs have migrated into the deeper soils including soils below the water table (i.e., soils saturated by area groundwater) and are likely entering the drainage system beneath the surface of the Site. These PCBs are able to migrate from the Site through the drainage system and may also be migrating in the groundwater. PCBs that enter into the underground drainage system move to the City of Philadelphia treatment works, but may move into the Delaware River, as designed, during high flow periods. The Delaware River contains fish that are removed from the River for consumption purposes as observed by the OSC and as documented by others. PCBs can bioaccumulate in exposed organisms and currently result in elevated levels of PCBs in Delaware River fish tissue. Due to the potential for increased consumption of PCBs in fish tissue by humans, advisories against consumption of fish extracted from the Delaware River have been posted by the Commonwealth of Pennsylvania. PCBs now present in the environment of the Delaware River have entered the food chain; humans (fishermen) are a part of the Delaware River food chain through consumption of fish. PCBs, which are a probable human carcinogen, tend to accumulate in the fatty tissue of exposed organisms. Animals and the food chain are potentially exposed to PCBs thereby posing a threat to human populations. The Delaware River Basin Commission has established Water Quality Standards to protect human health and environment; these standards include limitations for PCBs in the water. Additional exposure to PCBs contamination could occur to persons normally responsible for the maintenance of the combined sanitary and storm water drainage system which courses through the Site.

B. 300.415 (b)(2)(iv) -- "High levels of hazardous substances or pollutants or contaminants in soils, largely at or near the surface, that may migrate"

Analytical information indicates that PCBs contamination has been identified within the surface soils throughout the Site. Although currently covered by asphalt, available information indicates that the PCBs are migrating. In fact, the analytical data indicate that PCBs have migrated into deeper soils which lie within the groundwater system and into the drainage system beneath the Site. It is unclear if the asphalt cover is suitable for mitigating the further migration of PCBs; the asphalt cover is cracked and sloped such that water is able to pool and likely infiltrate through the asphalt. PCBs contamination remaining at the Site is able to migrate to the aquatic environment through established drainage pathways (storm and sanitary sewer systems) or through the groundwater system.

C. 300.415 (b)(2)(v) -- "Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released"

Precipitation events could result in fluctuation of the groundwater table. This fluctuation would allow for the contaminated soils to periodically saturate and allow for migration of PCBs from the soil into the groundwater and then further with the flow of the groundwater. The contaminated groundwater could enter the drainage system through flaws (e.g., cracks) in the structure. Storm water flows at the Site may also allow for infiltration of precipitation through the asphalt cap and underlying contaminated soils. The migrating water allows contaminants to enter the combined sanitary and storm water drainage system running through the Site through cracks or seams and thus allows for migration of PCBs with the flow of the storm water. Finally, storm flows which exceed (overflow) the capacity of the drainage system are discharged directly to the Delaware nearby the Site. This overflow may contain PCBs which have leaked into the drainage system from the Site in infiltrating waters or which have otherwise settled within the sediments within the drainage system.

D. 300.415(b)(2)(vii) – "The availability of other appropriate federal or state response mechanisms to respond to the release."

The OSC has coordinated with the Commonwealth of Pennsylvania and confirms that the Commonwealth presently has no plans for response actions at the Site.

IV. ENDANGERMENT DETERMINATION

Actual and threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

This Removal Action will primarily address the PCB contamination known to be migrating from the Site via the drainage system running through the Site and will include activities intended to reduce the potential for infiltration of PCBs into the drainage system. This Removal Action will not address the source of the PCB contamination; i.e., soils contaminated with PCBs and other hazardous substances. Instead, this action is intended to minimize further off-Site migration of PCBs and to characterize the Site further. This Removal Action also includes additional activities related to minimizing the migration of PCB contamination from the Site such as: replacing and/or sealing the existent asphalt cover to reduce infiltration of water through the cover and further migration of PCBs from the Site. Until all PCB-contaminated soils that could allow for migration of PCBs from the Site are excavated and removed, maintenance of the existent asphalt cap, continued monitoring of groundwater, and property-use restrictions will be required to assure the protectiveness of the response action.

Proposed Action Description

1. Mobilize personnel and equipment to the Site to implement response actions. Activities may include preparing to conduct removal actions by improving safety considerations and access to contaminated areas;

2. Continue removal site evaluation, including investigation, sampling, analysis, and characterization of PCB contamination consistent with 40 CFR Part 761;

3. Install a liner within that portion of the combined sanitary and storm water drainage system underlying the Site and within the PCBs-contaminated soils to minimize infiltration of PCBs contamination into the drainage system. Installation activities shall include evaluation of the integrity of the drainage system to aid in selection of specific liner, preparation of the drainage system for liner installation, and pumping the flow within the drainage system to allow for liner installation. Additional liner shall be installed as necessary to assure integrity of the liner discussed above.

4. Implement erosion and sedimentation controls as well as storm water management controls necessary to minimize the migration of storm water into any area subject to response activity which exposes PCBs contaminated soil; these actions are intended to minimize the migration of potentially PCB-contaminated storm water from the Site. Actions may include pumping and temporary containment of potentially PCB-contaminated storm water.

5. Treat, consistent with standards at 40 CFR § 761.79(b), on-Site waters which are accumulated during on-Site activities described in Items #3 and #4. Discharge the treated water to local sewage treatment plant. Or, if this arrangement is not feasible (e.g., due to volume or content of the on-Site wates or capacity of the treatment plant), dispose off-site the hazardous substances identified in item #4, and other wastes associated with the Removal Action, in accordance with Section 121(d)(3) of CERCLA and 40 C.F.R 300.440 and 40

C.F.R. § 761.61. Activities may include sampling, bulking, consolidating, drumming, pumping, or otherwise handling the hazardous wastes, hazardous substances, liquids, and wastes to ensure that they are properly transported.

6. Seal or replace and grade, as needed, asphalt cover over all areas of the Site containing PCBs contamination in the soil to minimize the potential for infiltration of surface water through the cover.

7. For as long as PCB-contaminated soils remain at the Site, provide notification to future owners of the Site of the presence and concentrations of the PCBs remaining at the Site and the need to maintain a cover over PCBs remaining at the Site consistent with the requirements of 40 C.F.R. § 761.61(a)(8).

8. For as long as PCB-contaminated soils remain at the Site, implement Post-Removal Site Controls through which the cover and fence are routinely inspected and which provide for repairs such that infiltration through the cover is minimized and the fence continues to serve to minimize entrance upon the Site.

B. Contribution to Remedial Performance

The Metal Bank of America State Road Site is not at this time proposed for inclusion on the CERCLA National Priorities List (NPL). The Removal Action is consistent with accepted removal practices and is expected to abate the threats that meet the NCP removal criteria.

C. Applicable or Relevant and Appropriate Requirements (ARARs)

The Removal Action will attain ARARs to the extent practicable given the exigencies of the situation.

On July 4, 2011, the OSC requested ARARs from PADEP for response actions similar to those contemplated herein. The OSC will continue to work with the Department for identification of ARARs.

To the extent that these and other regulations pertain to the scope of this action, EPA will comply with additional identified requirements to the extent practicable given the exigencies of the situation.

D. Estimated Costs

The proposed distribution of funding is as follows:

Extramural Costs	This Action	Total
Regional Allowance Costs: (ERRS contractors and subcontractors)	$741,850	$741,850
Other Extramural Costs Not Funded from the Regional Allowance: START Contractor	$ 75,000	$ 75,000
TOTAL REMOVAL ACTION PROJECT CEILING	$816,850	$816,850

VII. EXPECTED CHANGE IN SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If no action is taken or the action is delayed, the threat of additional or potential release of hazardous substances from the Metal Bank of America State Road Site into the environment, including the aquatic environment, is inevitable.

VIII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues pertaining to the Metal Bank of America State Road Site.

IX. ENFORCEMENT

The EPA Region III Office of Enforcement has been provided with all background information available regarding this Removal Action to pursue enforcement actions pertaining to the Metal Bank of America State Road Site (See attached Confidential Enforcement Addendum).

The total EPA costs for this removal action based upon full-cost accounting practices that will be eligible for cost recovery are estimated to be $1,507,262.[1]

Direct Extramural Costs	$ 816,850
Direct Intramural Costs	$ 85,000
Total, Direct Costs	$ 901,850

[1]Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

Indirect Costs (67.13 % x Direct Costs)	$ 605,412
Estimated EPA Costs for a Removal Action	$ 1,507,262

X. RECOMMENDATION

This Action Memorandum decision document represents the recommended Removal Action for the Metal Bank of America State Road Site in Philadelphia, Pennsylvania, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. Conditions at the Site meet the NCP Section 300.415(b)(2) factors for a removal and I recommend your approval of the Removal Action. The total project ceiling will be $816,850. Of this, an estimated $741,850, comes from the Regional Removal Allowance.

Action by the Approving Official:

This Action Memorandum represents the selected Removal Action for continuing the Removal Action at the Metal Bank of America State Road Site, in Philadelphia, Pennsylvania, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the administrative record for the Site.

Pursuant to Section 113(k) of CERCLA, 42 U.S.C. 9613(k) and EPA delegation No. 14-22, I hereby establish the documents identified in Attachment B hereto as the Administrative Record supporting the issuance of the Action Memorandum.

I have reviewed the above-stated facts and based upon those facts and the information compiled in the documents described above, I hereby determine that the release or threatened release of hazardous substances at and/or from the Site presents or may present an imminent and substantial endangerment to the public health or welfare or to the environment. I concur with the Removal Action as outlined in the Action Memorandum.

APPROVED: /Dennis P Carney/ **DATE:** 9/28/11

Dennis P. Carney, Associate Director
Office of Preparedness and Response
EPA Region 3

Attachments:
A. Enforcement Confidential Memo
B. Administrative Record documents